Optimising a model to deliver financial incentives – the lessons learnt through evaluation!

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Introduction

The NSW Sustaining the Basin: Border Rivers-Gwydir pilot project (the Project) was an on-farm irrigation infrastructure modernisation program conducted in northern NSW by the NSW Department of Primary Industries (DPI) in partnership with the Border Rivers-Gwydir Catchment Management Authority (BRG CMA).

The project was one of the first activities to be funded under the $300M Australian Government's commitment towards the NSW Farm Modernisation Program under the NSW Priority Project. Irrigators received an 80 percent subsidy for the cost of the infrastructure modernisation and returned 50 percent of the projected water savings to the Australian Government for reallocation to the environment.

The project provided an opportunity for irrigators to upgrade irrigation infrastructure, improve productivity, adapt to reduced water availability and ensure the long term sustainability of their local communities.

Importantly, an extensive evaluation process was implemented during the project to capture the irrigation industry's responsiveness to irrigation modernisation-based water recovery programs and will assist in developing future incentive projects in other NSW irrigation valleys.

Evaluation objectives of the Project

The project had three key result areas (KRAs) on which to base the overall success of implementation. These KRAs guided the evaluation effort, allowed constant review of progress and modification of the implementation process when required.

The KRAs were:

> **KRA1:** To have sufficient irrigators prepared to trade a percentage of water entitlements in return for incentives without negatively impacting on irrigators.
>
> **KRA2:** Increase the capacity of irrigators and service providers to select and manage appropriate infrastructure improvements and improve on-farm water use efficiency.
>
> **KRA3:** Build a tested model for water retrieval able to guide the development of future water recovery projects in NSW.

Overall implementation model- outcomes and recommendations

An appropriate methodology based on previous experiences and the timeframes of the project was developed (see below under 3.1). Some components of the initial model were modified over time in response to irrigator engagement.

Methodology

The methodology used for implementing the Project included the following:

- A partnership between DPI and BRG CMA
- An Expression of Interest (EOI) for irrigation consultants and irrigators
- A closed Tender process with two rounds
- The funding of on-farm water management assessments
- A capacity building program including training and demonstrations of new technology
- A Tender assessment process including a prioritising process
- An integrated communications plan
- A comprehensive Monitoring Evaluation and Reporting (MER) Plan including an external validation of MER
- Risk assessment and a risk management process review
- A probity review

- Due diligence assessment of successful Tenders
- Contract negotiations and entitlement transfer of water to the Australian Government.

All of these components were considered necessary to:

- Fully engage irrigators and service providers
- Ensure the process was fair, equitable and inclusive of all stakeholders
- Support the development of robust and viable infrastructure projects
- Provide the skills and knowledge to realise the potential water savings on-farm
- Provide robust information for future planning of similar projects.

In two tender rounds the Project received 54 Expressions of Interest and 38 Tenders. Fifteen Tenders were recommended for funding, with 12 of these Tenders being approved for funding by the Australian Government. These 12 then entered the contract phase with ten proceeding to completion. The Project contributed approximately $5.8 million to the local economy including irrigator contributions of approximately $1.2 million and 1,274 megalitres (ML) of water entitlements were transferred to the Australian Government.

Timing and timeframes

The Project commenced on the 12th October 2009, coinciding with a number of seasonal farming operations such as winter crop harvest and cotton planting. The first tender round opened in January 2011 providing irrigators with just eight weeks to complete a tender proposal. During this period irrigators could engage an approved consultant to complete on-farm water management assessments and participate in a variety of training. Timeframes were tight. A second tender round opened in May 2011 where irrigators had six weeks to submit a tender. This second round provided more time for irrigators who failed to submit a tender proposal in round one to complete this, as well as complete their on-farm water management assessments and attend relevant training.

Feedback from participating irrigators and service providers in all levels of evaluation indicated the timing and timeframes between stages of the implementation model was a barrier to achieving full engagement. Attrition rates occur in all processes, however given the time constraints of the project the conversion of EOIs to the development of Tenders was considered good at 45 percent.

Evaluation evidence highlighted that to maximise engagement of irrigators the implementation model needs to be flexible, allowing participants to join at a time that suits them over a prolonged timeframe in order to avoid conflict with key farming operations.

Legal processes

There were several legal processes and documents developed to support the implementation process. This was critical to underpin the efficient implementation of the project in the timeframe required and formalise/legalise the process given water entitlement was being relinquished. It was essential that clear information was provided to irrigators once funding was approved to facilitate implementation of their on-farm projects and maintain maximum engagement.

Evaluation highlighted that the processes and documents developed for the project were useful but there is still room for improvement. The main issues creating barriers to participation and frustration to the irrigators were the lengthy delays experienced during the due diligence and contractual phases of the project.

A special briefing was held for solicitors and financiers in response to issues with the Tender process which provided an opportunity to obtain feedback on the administrative and legal processes.

Despite all project communications encouraging irrigators to involve their business advisors early in the process, business advisors felt they had not been briefed adequately by irrigators. Consequently, they did not understand the requirements of the Tender application delaying approval and ongoing processors.

Recommendations

Extensive evaluation of the various components of the implementation model provided the following recommendations for future projects:

- Time implementation around key farming activities, seasons and major holidays
- Allow adequate timeframes for the various stages of the implementation model for engagement, planning and decision making

- Undertaken a period of planning prior to the commencement of implementation to identify client needs and develop any necessary information resources to address any engagement barriers
- Review and simplify project forms and templates to streamline the contractual phase Maximise the engagement of stakeholders using a diverse range of communication activities to a wider audience including specific stakeholder groups ie. business advisors for the duration of implementation.

Expression of Interest for Approved Service Providers

The approved service providers (ASPs) process was included as a way to ensure quality control of the consultancy work being undertaken for irrigators including on-farm water management assessments. Project staff selected ASPs who had evidence of either an industry certification or irrigation related degree and demonstrated experience in water use efficiency auditing at the broadacre scale. Although the concept of having a selection and endorsement process for ASPs to improve the quality of the outputs was sound it was evident that there was a wide range of quality in the services provided. Generally, irrigators were very happy with their on-farm assessments but some weren't which was a reflection of the capacity and skills of the ASP engaged.

Recommendations

Modifications of the ASP process would deliver better outcomes with simple modifications including:

- one-on-one meetings with the ASPs early in the implementation process to provide guidance on what is a satisfactory on-farm assessment
- specific training for ASPs to enhance service delivery and reporting
- examples of industry best practice on-farm water management assessments including examples of whole farm water balance calculations
- development of a certification program for large area irrigation efficiency auditing.

Closed Tender process

The project used a competitive closed Tender process conducted under Catchment Management Authority protocols for delivering the financial incentives. This approach was considered appropriate to drive innovative approaches and allow irrigators to value their own water. It also ensured probity guidelines were followed.

Opinion was divided between the value of a closed Tender process compared to a set price per ML. Most were in favour of the process (58%) the remaining participants preferred the set price per ML because it was more transparent. An external review of the project confirmed this finding but also recommended there could be a place for a process that included both options to engage a greater number of participators.

Issues encountered as a result of the process were:

- Confidentiality of the price paid to participating irrigators was negated with the inclusion of a second Tender round. Information is passed on very quickly in small regional communities.
- Sharing of information between partner organisations regarding Tender applications which impacted on the implementation of the Communication and MER plans.

There were a range of reasons why participating irrigators did not submit a Tender the most significant by far were the short timeframes and an unwillingness to give up entitlement. Irrigators also indicated the short timeframes and unclear expectations posed a significant barrier to adequately research and prepare the Tender document which was demonstrated by the low percentage of successful Tenders in round one (23%). In response to this, DPI provided feedback from the assessment process of the first Tender application and guidance to unsuccessful irrigators and their ASP on the re-scoping of their Tender application for round two which irrigators found highly valuable.

Tender assessment process

A formalised Tender assessment process was developed to assess the Tender applications using a set of robust criteria to prioritise them for the recommendation of funding. This was to provide consistency in the review process and to provide a prioritised list of Tenders to the Australian Government in terms of validity, technical feasibility and value for money.

A Tender Assessment Committee (TAC) was convened by the BRG CMA with guidance from DPI. The scoring and weighting system developed for assessment was well received and considered

very useful. Generally, the TAC believed the process used was professional with best practice, rigor and consistency applied which is essential for ensuring public money is being invested into feasible projects that won't negatively impact on the irrigator, the environment or the community. The TAC also identified the improvement in quality of the Tender applications from round one to round two and supported the inclusion of providing one-on-one support to irrigators and ASPs to develop their Tenders.

Recommendations

The following recommendations are suggested for future projects:

- Use an application process including a competitive tender process rather than a closed Tender process
- Retain an EOI process for ASPs to provide a quality control mechanism
- Conduct information sessions or workshops on proposal development with relevant example documents and information resources early in the implementation process for irrigators and ASPs.
- Provide technical input to irrigators and ASPs during the proposal development stage to ensure applications meet an agreed standard prior to submission for assessment
- Retain an independent technical review process to ensure the projects are realistic, technically sound and provide value for money.

Capacity building

The project used a risk management approach to ensure that irrigators undertook careful planning and assessment of their proposals and had the ability to manage any newly funded infrastructure. The project incorporated a comprehensive capacity building program that included training workshops, irrigation technology demonstrations and development of a range of irrigation information resources to complement other components of the program.

Feedback from irrigators indicated that while they are very interested in attaining new skills and knowledge, they lacked the time to attend the wide range of opportunities available to them. In response to this DPI developed a series of short videos that could be accessed form the DPI website. The videos covered key points from various irrigation training events. Technical articles were also published in a number of industry forums which covered a variety of irrigation related topics.

Training program

Irrigators were asked to nominate their training priorities and the types of infrastructure they were considering during the EOI process. A program of non-compulsory priority irrigation training was developed based on the information provided. Despite feedback from irrigators and ASPs that they lack time, the high number of irrigators and ASPs who participated in the training events indicated there is a strong demand for information.

The majority of participants were satisfied with the course content and delivery of the various workshops. Forty-five per cent of the Tender applicants indicated that the training assisted them in developing their Tender application. They also found the information useful, resulting in improved understanding of irrigation best management practice which could assist them in developing future infrastructure projects.

Recommendations

The outcomes of the Project identified the following recommendations to improve future capacity building programs to support incentive programs:

- Retain an EOI process or similar to determine the training needs of participants prior to implementation
- Determine the level of skills and knowledge of participants prior to delivery of training and customise the course appropriately
- Review and develop new training modules to continue to meet client needs
- Identify alternative methods of delivery and complementary resources to address the time restrictions of clients.

On-farm water management assessments

Robust investigation is essential for planning purposes. The project included a financial incentive to undertake a thorough on-farm water management assessment to identify and quantify where water losses were occurring and to provide recommendations on all suitable infrastructure options to address this. Irrigators who took up the incentive were not required to proceed to Tender.

From the 54 EOIs received from irrigators, 44 assessments were requested and 35 were completed representing 30 farm businesses. The assessments encompassed 23,500 ha of irrigated land and 79 GL of Regulated River General Security Entitlement. Assessments identified $12M of potential irrigation infrastructure investment with annual water savings of 5.9 GL. At the farm scale, this equates to around 0.25 ML of potential water savings per hectare per annum. There was overwhelming evidence that on-farm assessments:

- are highly valued by irrigators
- assisted irrigators to identify irrigation infrastructure investment opportunities
- increased irrigators awareness of the importance of on-farm water measurement and record keeping
- improved the quality of Tenders submitted
- assisted the TAC to assess proposed on-farm projects
- provide confidence for financiers in making financial decisions
- are a lasting legacy and valuable resource for irrigators for future planning.

The quality of information presented in the audited assessments ranged from very basic to detailed, robust assessments reflecting a very high standard and the use of an industry recognised method. The large variability in assessment quality observed by DPI during the audit process reinforces the need to continue capacity building efforts with both ASPs and irrigators to improve the quality of information presented.

Recommendations

- Longer timeframes between water management assessments and tender submission, allowing at least three to four months for ASPs to complete the assessments
- Develop and deliver capacity building activities for irrigators to promote the benefits of on-farm water measurement and record keeping
- Provide examples of an on-farm assessment reports completed to industry best practice standard
- Audit assessment reports early in the Project to ensure any issues are identified and corrected quickly.

Conclusion

The Project was a complex and at times difficult initiative to implement given the time constraints imposed. However, it is now clear that the irrigation industry are open and supportive of infrastructure modernisation programs as a mechanism to build resilience in farming businesses and regional communities and also return water to the environment.

The evidence from this project suggests that to develop feasible and cost effective on-farm projects and realise the projected outcomes, incentive programs such as this need to be supported by a range of other components including:

- targeted training
- approval and endorsement of service providers
- rigorous on-farm water management assessments
- streamlined and well thought out legal and administrative processes
- comprehensive and diverse communications and engagement processes.

The inclusion of all these components will deliver positive outcomes for irrigators, irrigation communities, government and the environment to ensure the outcomes from investment are optimised.